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ABSTRACT

Based on their classroom experiences with learning disabled (LD) nonhandicapped students during the school year, 16 third grade teachers were asked to complete rating scales predicting expected performance of siblings of these students who might be assigned to them in the future. Results revealed that teachers hold significantly lower expectations for siblings of LD children than are held for siblings of nonhandicapped children. Lower expectations were consistent for all areas of academic performance, classroom behavior, motor skills, perceptual abilities, and memory. Siblings of LD children also were expected to make less progress throughout the school year and to require more support services. These data suggest that previous experiences with LD children bias teachers' expectations for the younger siblings of these children. (Author)

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University of Minnesota

Research Report No. 39

TEACHERS' ATTITUDES AND EXPECTATIONS FOR SIBLINGS OF LEARNING DISABLED CHILDREN

Linda S. Richey, James Ysseldyke, Margaret Potter,

Richard R. Regan, and Jean Greener

IRLD

Institute for Research on Learning Disabilities

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I. Adequacy of Norm-Referenced Data for Prediction of Success

II. Computer Simulation Research on the Assessment/Decision-making/Intervention Process

III. Comparative Research on Children Labeled LD and Children Failing Academically but not Labeled LD

IV. Surveys on In-the-Field Assessment, Decision Making, and Intervention

V. Ethological Research on Placement Team Decision Making

VI. Bias Following Assessment

VII. Reliability and Validity of Formative Evaluation Procedures

VIII. Data-Utilization Systems in Instructional Programming

Additional information on these research areas may be obtained by writing to the Editor at the Institute.

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August, 1980

Abstract

Based on their classroom experiences with learning disabled and nonhandicapped students during the school year, teachers were asked to complete rating scales predicting expected performance of siblings of these students who might be assigned to them in the future. Results revealed that teachers hold significantly lower expectations for siblings of learning disabled children than are held for siblings of nonhandicapped children. Lower expectations were consistent for all areas of academic performance, classroom behavior, motor skills, perceptual abilities, and memory. Siblings of learning disabled children also were expected to make less progress throughout the school year and to require more support services. These data suggest that previous experiences with learning disabled children bias teachers' expectations for the younger siblings of these children. Results of a previously conducted pilot study are confirmed in this investigation.

Teachers' Attitudes and Expectations

for Siblings of Learning Disabled Children

Social status of learning disabled children has long been of concern to educators. Bryan and Sherman (1980) report that children labeled as learning disabled (LD) are held in relatively low esteem and are likely to be rejected by both their peers and adults who work with them in classrooms. Adult rejection of LD children, however, does not appear to be merely a function of extensive experience with or knowledge of the child, but may also occur prior to actual contact with the child (Bryan & Perlmutter, 1979). Therefore, it becomes important to examine the nature of teachers' attitudes toward the LD child and the performance expectations that may be generated by such attitudes.

One commonly accepted definition of an attitude is stated in the following manner: "Attitude is the predisposition of the individual to evaluate some symbol or object or aspect of his world in a favorable or unfavorable manner" (Katz, 1960, p. 168). Human attitudes and interaction processes are related to future plans, intentions, and consequences for the individual, and may endure for weeks, months, years, and even a lifetime (Sherif, 1976). Having an attitude is described by Sherif as the act of being for or against something or someone; attitudes are inferred from an individual's characteristic, consistent modes of behavior that are directed toward (e.g., preferring, favoring) or against relevant situations, events, groups, or persons.

Within the school environment, the relationships, or ties, that individuals (both students and teachers) form with objects of their

attitudes have been historically of considerable interest to educators. More than a decade ago, Rosenthal and Jacobson (1968) published Pygmalion in the Classroom, which launched an enormous research effort into the effects of teachers' (i.e., individuals') expectations for the performance of students (i.e., objects of attitudes). Although Rosenthal and Jacobson's (1968) findings were the result of artificially induced expectancies and met with considerable controversy within the research community, subsequent research into the effects of teachers' expectations on student performance has supported the contention that such expectations do exist and may in actuality function as self-fulfilling prophecies (Brophy & Good, 1974).

Teachers' predictions of and expectations for the future performance of children have been shown to be influenced by a variety of factors (Algozzine & Mercer, in press). For example, Brophy and Good (1974) report that the observation that a child is a low-achiever may result in different teacher-pupil interactions than the observation that a child is a high achiever. Such observations may result in biased interactions (Brophy & Good, 1970) and subsequently result in different performance outcomes for some children (Willis & Brophy, 1974).

Biases can be described as reflections of expectations that are based, in part, upon prior experiences. For example, Seaver (1973) suggests that teachers' expectancies may be biased as a function of previous experience with children's older siblings.

> The tendency should be for the teacher to expect the younger sibling to be more like his [or her] older sibling than he [or she] actually is. Further, the direction and range of expectancies should be as great as that of actual experiences with pupils. Poor students should induce teachers to expect dullness in their younger siblings; discipline problems should induce teachers to expect the worst sort of behavior from their younger siblings; and brilliant pupils should lead their teachers to expect the same top performance of their siblings. (p. 335)

Seaver looked at expectancy effects by examining the first-grade achievement scores of children who had been preceded in school by "bright" or "dull" older siblings. He hypothesized, and found, that when the older siblings had been good students, the younger siblings performed better when taught by the same teacher than when taught by a different teacher; when the older siblings had been poor students, the younger siblings performed worse when taught by the same teacher than when taught by a different teacher.

However, in Seaver's study, the effects due to individual teachers were not analyzed; therefore, it is not clear whether any of the teachers had both a younger sibling whose older sibling they had taught and a younger sibling whose older sibling they had not taught.

While Seaver's results provide interesting data, they do not speak directly to the issue of the learning disabled student and the expectancy effects that might be created through teachers' experiences with such students. The purpose of this study was to investigate the extent to which having classroom experience with an older sibling identified as learning disabled alters a teacher's expectations for non-learning disabled younger siblings. In addition, the study attempted to clarify some of the methodological problems present in Seaver's study.

Data collection was scheduled for the end of the school year to ensure that no actual children might be placed at risk by the nature of questions being addressed in the study. Further, teachers were asked to make predictions for an hypothetical sibling of two LD and two non-LD students who had been in their classroom during the year. The research hypothesis tested was that there would be no difference in teachers'

expectations for the siblings of LD students versus the siblings of non-LD students.

Method

Subjects

Subjects for this investigation were 16 regular third-grade teachers who were employed in seven school districts in the Minneapolis-St. Paul metropolitan area. Demographic information concerning these subjects is presented in Table 1. Average age for teachers was 36.4 years (range: 26.0 to 60.0). The two male and 14 female participants' average experience was 11 years (range: 3 to 20); two teachers indicated that they had received some special education training, while 14 stated that they had not received such training. All participants had taught the four children who were selected as target subjects within their classroom for at least two major academic subjects for the entire school year (see Appendix A for selection criteria).

Insert Table 1 about here

Dependent Measures

A rating scale was developed as a part of the pilot study for this investigation (Richey, Potter, & Ysseldyke, 1980). The scale was constructed to obtain information concerning teachers' expectations for students' future performance (see Appendix B for Teacher Prediction Scales). Information concerning various measures of classroom success, such as academic achievement, perceptual skills, motor performance, classroom behavior, and social/emotional development, was included.

Predictions for the extent to which the child's classroom behavior might be disturbing to the teacher, how much progress he/she might be expected to make during the school year, and estimated need for support services were also incorporated into the scales.

A second dependent measure consisted of a structured interview (see Appendix C for Teacher Interview). This instrument included demographic information (i.e., sex, age, grade level taught, years experience, special education training), and two measures of attitude toward learning disabilities. The first attitude question asked the teacher to name the major cause of learning disabilities, while the second asked him/her to signify the extent to which learning disabled children, given adequate support, might be expected to learn as well as their "normal" peers. A final question concerned other family members taught and the extent to which any of these relatives had received special services.

Procedures

Subjects for this investigation were selected using the criteria described in Appendix A. Learning disabled (LD) third graders were identified in participating schools, and pairs (i.e., a boy and a girl) were located within the classrooms of regular third-grade teachers. After the learning disabled pair was selected, school personnel examined their school records to ascertain whether they met the following criteria: (a) the child must have been identified as LD on or before October 1 of the current school year, (b) he/she must have been in the regular third-grade teacher's class for the entire school year, and (c) the child must have no actual siblings within three grade levels (above or below) in attendance at the same school within the current school year. Teachers

who had appropriate LD pairs within their classrooms were asked to participate in the study. After permission for participation was obtained from each teacher, a nonhandicapped pair of children was selected at random using criteria (b) and (c) above, with one additional restriction that they must have never received special services. The LD and non-LD pairs served as target subjects for the subsequent investigation.

Data Collection

Data collection took place during the last three weeks of the school year (May 7 through June 1). These dates were selected to avoid placing the target children at risk for any negative teacher expectations that might be generated as a function of the hypothetical predictions that were made.

Participants were informed that the nature of the study was to investigate classroom teachers' ability to predict student performance. Secondly, teachers were told that four children in their classroom had been selected at random, and that, based upon their (teachers') experiences during the school year with each of the children, they would be asked to predict the school performance of any (hypothetical) siblings who might be assigned to them in the future. Administrative procedures are described in Appendix D.

Teachers were then asked to complete a Teacher Prediction Scale for an hypothetical sibling of each of the four target children. Order of presentation of the scales was random. The Teacher Interview was presented following completion of the four prediction scales. All data were collected by either a reaseach assistant or a post-doctoral fellow, both of whom had been trained in the administration procedures.

Results

In order to test the hypothesis that teachers' expectancies for the siblings of LD children would not be significantly different from expectations for the siblings of children who are not LD, Likert ratings for both groups were summed and means and standard deviations (see Table 2) were calculated for each group (LD and non-LD). A two-factor repeated measures analysis of variance was performed on scores from the Teacher Prediction Scales; results of the analysis of variance are presented in Table 3. The level of significance was set at $p \leq .05$.

Insert Tables 2 and 3 about here

The analysis of variance revealed a significant main effect for condition of LD versus non-LD [F (1,15) = 4.54]; nonsignificant results were obtained for the main effect of sex and the condition by sex interaction. These results are supportive of the hypothesis that teachers' expectations for the siblings of learning disabled children ($\bar{X}$ = 42.65) are significantly lower (p = .0000) than expectations for the siblings of non-learning disabled children ($\bar{X}$ = 61.34). Follow-up one-way analyses were performed for each item on the Teacher Prediction Scales to ascertain which individual measures accounted for the differences in the overall analysis. The resultant F-ratio and levels of significance are shown in Table 2; all follow-up analyses were significant at $p < .01$ [F (1,63) = 4.25].

Data Analysis for Teacher Attitude

Teachers also were asked two questions related to attitudes toward learning disabilities. The results of these questions are presented in Table 4. The first question addressed the issue of etiology of learning

disabilities. Approximately 44% indicated that environmental factors were the major cause of LD, 18.8% stated that medical problems were most influential, while 12.5% said that heredity was the most likely cause. The remaining 18.9% felt that various combinations of factors were the major cause. The second question asked teachers the extent to which they believe (i.e., agree or disagree) that LD children, if given adequate support services, can learn as well as their non-LD peers. Results were equivocal; 37.5% "agreed" with the statement, however, 31.3% "disagreed." The percentage of teachers who "disagreed strongly" was the same as for those who "agreed strongly" (6.3%); 18.8% were "not sure."

Insert Table 4 about here

One additional piece of information was obtained to ascertain the extent to which prior experience with siblings of the target child might also have influenced the results of the study (see Appendix C for specific questions). Teachers were asked to list any additional family members who had been in their classrooms, when the child had been taught, and any special services that the child had received. Of the 64 target children in the study, teachers indicated that they had previous experience with actual siblings of only five of these. Two of the five older siblings of target subjects had received special services, while three had not been recipients of any additional support beyond regular classroom participation.

Discussion

Results of this investigation revealed that teachers' expectations for school performance of younger siblings of learning disabled children are significantly lower than expectations held for younger siblings of

nonhandicapped children. In light of these findings, the question of interest becomes "What effect, if any, do these negative expectations have on academic and social outcomes for the siblings of LD children?" The present study did not examine effects of lowered expectations on children's academic or social outcomes; however, Seaver (1973), in a post-hoc analysis of achievement measures on younger siblings of high- and low-achieving children, concluded that the siblings of low-achievers, if taught by the same teacher, have poorer academic performance when compared to the siblings of their high-achieving peers. Seaver attributed these findings solely to achievement expectations held by teachers; yet, additional contributing factors may have been operant.

The mechanisms by which initial expectancies are translated into lower performance for such children is not entirely clear; however, previous investigations have shed some illumination on this issue. For example, Brophy & Good (1974) report several studies which concluded that teachers interact in a more positive fashion with children for whom high expectations are held (cf. Dalton, 1969; Good, 1970; Kranz & Tyo, 1973; Rist, 1970; Willis, 1970). Low expectations for children's performance, on the other hand, have been shown to result in fewer response opportunities and more criticism for incorrect answers (Brophy & Good, 1970). Further, Beez (1968) demonstrated that teachers tend to teach more to those students from whom they (teachers) expect a higher performance. Thus, the vicious cycle of teachers' expectations functioning as self-fulfilling prophecies (Jones, 1977) for many children is spawned.

From the perspective of the child, students have a tendency to cue in on low expectations from teachers (Veldman, 1973). Brophy and Good (1974) have cautioned that "teacher expectancy effects are likely to be

greater when the [child] accurately perceives the teacher's behavior, and understands the implications regarding these expectations for him" (p. 117).

Learning disabled children are characterized by lower academic achievement. If teachers interact in a less positive fashion, provide fewer response opportunities, and attempt to teach less material to children who are expected to have lower achievement, lowered expectations for the younger siblings of LD children may very well result in lowered school performance. If children, on the other hand, are aware of teachers' lower expectations and their negative ramifications, then the siblings of LD students may also develop low self-concepts. Educational, and therefore life opportunities, might be greatly reduced for these children through the interaction of lowered academic achievement, self-concept, and teachers' expectations.

An additional concern is related to the origins of expectations. Brophy and Good (1974) challenged the research community to investigate further the kinds of teachers who are most likely to allow expectations for a child's performance to affect their teaching behavior. Some insights into this question have been gained; however, only the tip of the iceberg has surfaced. Rubovits and Maehr (1973) found a positive relationship between measures of dogmatism in teachers and their differential treatment of students. One additional study (Ysseldyke, Algozzine, Regan, Potter, Richey, & Thurlow, 1980) has demonstrated that teachers are differentially biased by various kinds of information about a child, and that these biases have a deleterious effect upon outcome decisions that are made.

Beliefs that are held concerning others may also affect the quality of interactions with those individuals (Farina & Ring, 1965). Teachers in the present investigation were asked two questions concerning their

attitudes toward learning disabilities as a condition; one question addressed the issue of etiology, while the second related to remediability. More than half of the participants (56.4%) included environmental factors as a major cause of LD. Approximately equal numbers of teachers either agreed (43.8%) or disagreed (37.6%) as to the extent to which LD might be remediated. The remaining 18.8% reported that they were not sure about remediability of LD. Based on the assumption that beliefs concerning individuals affect subsequent behavior toward those individuals, one might conclude that those teachers who believe that LD can be "treated" successfully would behave in a more positive manner toward LD students and their siblings, and further, that teachers who view the environment as an important factor in the etiology of LD might be more inclined to take a positive approach toward their responsibility as teachers for both prevention of and intervention with LD.

The results of this research have supported previous investigations into the negative effects of the condition called "learning disabilities" upon those individuals who are so labeled (i.e., LD) and their siblings. Although many of the participating teachers reported relatively positive attitudes toward the causes and remediability of LD, the majority held either negative attitudes toward the LD child's ability to learn or were not sure of their feelings. These findings indicate a need for further research into both the <u>actual</u> social and educational outcomes for LD children and their siblings, and the nature of the beliefs and behaviors of teachers who hold negative expectations for such students. The importance of such research lies in that <u>intra-individual</u> academic and social changes for children may, in the final analysis, be contingent upon <u>extra-individual</u> factors, such as expectations of teachers.

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Footnote

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Table 1

Demographic Information Concerning Teacher Subjects

Males 2	Females 14	Total 16
Years of teaching experience - Range = 3 to 20 ($\bar{X}$ = 11.3)		
Special Education training	Yes 2	No 14
Age - Range 26 to 60 ($\bar{X}$ = 36.4)		

Table 2

Means, Standard Deviations, and F-ratios for LD and NLD

Scale Items	LD Siblings	NLD Siblings	Total	F
1. Reading level	2.2 (1.1)	4.2 (0.8)	3.2 (1.4)	72.89**
2. Reading comprehension	2.3 (1.0)	4.2 (0.8)	3.2 (1.3)	71.61**
3. Spelling achievement	2.2 (1.0)	3.9 (0.9)	3.0 (1.3)	50.88**
4. Math achievement	2.9 (1.1)	3.9 (0.8)	3.4 (1.1)	16.85**
5. General knowledge	2.8 (1.1)	4.1 (0.8)	3.4 (1.2)	27.44**
6. Visual and/or auditory perception	2.8 (1.0)	4.1 (0.6)	3.5 (1.0)	41.13**
7. Memory skills	2.6 (1.2)	4.1 (0.9)	3.3 (1.3)	31.36**
8. Fine and/or gross motor performance	3.5 (1.2)	4.0 (0.9)	3.7 (1.1)	4.12*
9. Attending behaviors (attention span)	2.7 (1.4)	4.1 (1.0)	3.4 (1.4)	19.40**
10. Assignments completed	3.3 (1.4)	4.3 (1.0)	3.8 (1.3)	10.45*
11. Relationships with other students	3.3 (1.3)	4.2 (0.9)	3.7 (1.2)	8.93*
12. Self-concept	2.8 (1.2)	4.1 (0.9)	3.4 (1.2)	26.07**
13. Classroom behaviors of this child might be expected to	3.4 (1.4)	4.4 (1.0)	3.9 (1.3)	9.73*
14. How much progress might you expect this child to make during the year?	2.9 (0.8)	4.3 (0.8)	3.6 (1.1)	41.50**
15. Additional needs of this child might include:	2.2 (0.8)	4.6 (0.9)	3.4 (1.5)	140.54**

*p = .01
**p = .0000

Table 3

Summary Table for Repeated Measures Analysis of Variance

Source	df	ms	F
Condition (LD/NLD)	1	5587.56	30.48*
Sex	1	14.06	.16
Condition X Sex	1	110.25	2.42

*p = .0000

Table 4

Frequency Distributions of Teacher Attitude Measures

Item	Response
Major cause of Learning Disabilities	
Medical	18.8%
Environmental	43.8%
Hereditary	12.5%
Medical/Hereditary	6.3%
Hereditary/Environmental	6.3%
Medical/Hereditary/Environmental	6.3%
Given appropriate support services, LD children learn as well as "normal children."	
Disagree strongly	6.3%
Disagree	31.3%
Not sure	18.8%
Agree	37.5%
Agree strongly	6.3%

APPENDICES

Appendix A

Description of Subjects and Selection Criteria

Subjects

Hypothetical subjects for the study will be (64) third graders; (16) will be learning disabled males, (16) learning disabled females, (16) non-handicapped males, and (16) non-handicapped females.

Direct subjects will consist of (16) regular third grade classroom teachers.

Selection criteria. Several issues concerning subject selection procedures are noted below:

1. Indirect subjects (children) must have no actual siblings who have been in attendance at the same school within ± 3 grade levels. This procedure would ensure that no siblings would have been in attendance in the same school during the current school year.

2. LD and non-LD subjects will be matched on:

   a) grade level - all children should have been third graders during the school year in question.

   b) sex - each direct subject (teacher) will rate an hypothetical sibling of both a male and female LD child, and a male and female non-LD child.

3. Direct subjects (teachers) should have:

   a) taught the child for the entire school year (the child may have entered the class within the first month of the school year).

   b) the teacher must have taught the child in at least 2 major academic areas.

Appendix B

Teacher Prediction Scales

Directions to teachers: Circle the number that best describes your predictions for the child's school performance in each of the following areas during the next school year.

		1	2	3	4	5
1.	Reading level	deficient (poor)		not sure		superior (excellent)
2.	Reading comprehension	deficient		not sure		superior
3.	Spelling achievement	deficient		not sure		superior
4.	Math achievement	deficient		not sure		superior
5.	General knowledge	deficient		not sure		superior
6.	Visual and/or auditory perception	deficient		not sure		superior
7.	Memory skills	deficient		not sure		superior
8.	Fine and/or gross motor performance	deficient		not sure		superior
9.	Attending behaviors (attention span)	deficient		not sure		superior
10.	Assignments completed	seldom		not sure		almost always
11.	Relationships with other students	poor		not sure		excellent
12.	Self-concept	very negative		not sure		very positive
13.	Classroom behaviors of this child might be expected to	disturb me a lot		not sure		disturb me very little
14.	How much progress might you expect this child to make during the year?	almost none	some	not sure	average	excellent
15.	Additional needs of this child might include:	special class placement	some support services	not sure	little support services	no special services

Appendix C

Teacher Interview

Sex of teacher: _____Male _____Female Age:_____

Grade level taught:_____

Years experience:_____

Special education training _____ Yes _____ No

What do you think is the major cause of LD?

Medical_____ Environmental_____ Hereditary_____

Other (specify) _____

Given appropriate support services LD children can be expected to learn as well as "normal" children.

_____ disagree strongly

_____ disagree

_____ not sure

_____ agree

_____ agree strongly

Have you taught any other members of this student's family? Yes_____ No_____

If yes, list below and indicate any special services the child was receiving at the time he/she was in your class (e.g., none, MR, LD, ED, SLBP, PH, visually handicapped, speech and hearing, physical therapy, counseling, etc.).

Name	When Taught	Special Services

Appendix D

Administration Procedures for Teacher Prediction Scale and Teacher Interview

1. Know name of teacher and names of students teacher is to rate.
2. Contact each teacher and set up a time ( ) when the scale may be administered.
3. For each teacher have one copy of the Prediction Scales and one copy of the Teacher Interview for each child the teacher is to rate.
4. Remind the teacher that this information is being collected for research purposes only; it will be held strictly confidential, and will in no way affect the child or his educational program.
5. Hand the teacher the "Teacher Prediction Scales" with the following statement:

"This inventory is designed to measure predicted school performance of children in regular elementary classrooms. Based upon your experience with _____ (child's name) this school year, we would like you to predict what you would expect if you should have _____'s (Child's name) younger brother or sister in your class next year. Answer each item on the scale by circling the number that best describes your predictions for a brother or sister of _____ 's performance in each area (child's name) during the next school year. Try to avoid the use of #3 (not sure whenever possible."

If more than one child per teacher:

"Now I would like you to do the same thing for _____.
Remember, circle the number that best describes your predictions
for a brother or sister of _____'s
child's name
performance in each area during the next school year."

6. After the teacher has filled out the Prediction Scale for each child, say, "I would like to ask you just a few additional questions"; then fill out a Teacher Interview form for each child (be sure the Interview Form is coded to match the child's Prediction scale).

7. Thank the teacher for his/her cooperation and ask them not to discuss the nature of content of this study with any other teachers since we will be asking other teachers to participate in this study.

Notes to keep in mind

1. The study is being conducted by the College of Education at the University of Minnesota.
2. Designed to inventory common characteristics of samples of children in typical elementary classrooms.
3. Inventory is designed for research purposes only and will be kept completely confidential.
4. Children were chosen by the school to meet certain qualifications set by the researchers. The children from this group who are actually being rated are those whose parents agreed to participate in this study.
5. We are having a sample of teachers in this district and other districts participate in this study.
6. Ask teacher not to discuss this study with any other teachers.

PUBLICATIONS

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University of Minnesota

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